

Title (en)

Injection molding nozzle with edge gate inserts and sealing ring

Title (de)

Spritzgiessdüse mit seitlichen Anschnitteinsätzen und Dichtungsring

Title (fr)

Buse à mouler par injection avec inserts d'entrée d'injection latérale et bague d'étanchéité

Publication

EP 0842751 A3 19990616 (EN)

Application

EP 97117701 A 19971013

Priority

CA 2190569 A 19961118

Abstract (en)

[origin: EP0842751A2] Edge gated injection molding apparatus wherein each heated nozzle has the combination of a circular sealing ring extending around it and several gate inserts, each extending radially outward from the nozzle in alignment with a gate. The sealing ring bridges an insulative air space between the heated nozzle and the surrounding wall of a well in the cooled mold to provide a sealed portion of the space around the gate inserts. The outer end of each gate insert is spaced a predetermined distance "D" from the wall of the well in which the nozzle is seated to form an opening therebetween. The opening is large enough to allow pressurized melt to flow outwardly therethrough into the sealed front portion of the space between the nozzle and the surrounding wall of the well and small enough to prevent the partially solidified melt in the sealed front portion of the space being sucked back into the melt stream during subsequent injection cycles. <IMAGE>

IPC 1-7

B29C 45/27

IPC 8 full level

B29C 45/26 (2006.01); **B29C 45/27** (2006.01); **B29C 45/72** (2006.01); **B29C 45/73** (2006.01)

CPC (source: EP)

B29C 45/2735 (2013.01); **B29C 2045/2761** (2013.01)

Citation (search report)

- [A] US 5268184 A 19931207 - GELLERT JOBST U [CA]
- [A] US 5269676 A 19931214 - GELLERT JOBST U [CA]
- [A] EP 0303814 A1 19890222 - GELLERT JOBST U
- [A] US 4921708 A 19900501 - GELLERT JOBST U [CA]
- [A] WO 9113742 A1 19910919 - SEIKI CORP CO LTD [JP]
- [A] EP 0590677 A1 19940406 - HUSKY INJECTION MOLDING [CA]

Cited by

EP1813411A3; US5980237A; US7396226B2

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0842751 A2 19980520; EP 0842751 A3 19990616; EP 0842751 B1 20020320; AT E214656 T1 20020415; BR 9705341 A 19990518; CA 2190569 A1 19980518; CA 2190569 C 20051108; CN 1074977 C 20011121; CN 1182666 A 19980527; DE 19745230 A1 19980520; DE 19745230 B4 20070308; DE 69711154 D1 20020425; DE 69711154 T2 20020725; HK 1010855 A1 19990702; JP 4146537 B2 20080910; JP H10156893 A 19980616

DOCDB simple family (application)

EP 97117701 A 19971013; AT 97117701 T 19971013; BR 9705341 A 19971031; CA 2190569 A 19961118; CN 97117099 A 19971022; DE 19745230 A 19971013; DE 69711154 T 19971013; HK 98112050 A 19981116; JP 31732597 A 19971118